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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/921,184      | 08/02/2001  | Byung-Jik Kim        | 5000-1-216          | 6101             |

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EXAMINER

NGUYEN, SON V

ART UNIT PAPER NUMBER

2839

DATE MAILED: 08/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/921,184

Applicant(s)  
Kim et al.

Examiner  
Son Nguyen

Art Unit  
2839



– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.
- ### Disposition of Claims
- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirements.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, lines 4-5, there is no antecedent basis for "the rear end of said shelf." In lines 6-7, there is no antecedent basis for "the outer surface of said switch motherboard." In lines 8-9, there is no antecedent basis for "the front surface of said switch motherboard."

In claim 2, lines 2-3, there is no antecedent basis for "the front center portion of said switch motherboard."

Claims 7-8 have a similar rejection claims 1-2.

In claim 12, there is no antecedent basis for "said guide rail."

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsieh et al. (US 5,625,780) and Van Deventer (US 6,021,234) and Cannella, Jr. et al. (US 6,144,561).

Hsieh et al. discloses a cross connect device [figure 2] comprising:

- a switch motherboard [10];
- a crosspoint switch [22] positioned in the center of the motherboard;
- a plurality of switch connectors [12];
- a plurality of transceiver boards [14] having a plurality of connector [not shown] for connecting to the switch connectors; and
- an impedance signal line is formed in the mother board [figure 2, column 6, lines 25-26].

Hsieh et al. discloses the instant claimed invention except for the transceiver boards are optical boards.

Van Deventer discloses an interconnect device [figure 1] having a plurality of optical boards [16, claim 20] being mounted on a motherboard [10].

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the boards of Van Deventer to use the optical boards as taught by Van Deventer for the purpose of providing a communication signal <sup>or</sup> an optical signal.

Hsieh et al. and Van Deventer discloses the instant claimed invention except for the motherboard and the transceiver mounted to a shelf having a plurality of racks.

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Cannella, Jr. et al. discloses a board assembly [figure 2] comprising a shelf [10] having a plurality of guide rails.

It would have been obvious to one having ordinary skill in the art at the time invention was made to use the transceiver boards of Van Deventer place into the shelf including the guide rails as taught by Cannella, Jr. et al. for the purpose of facilitate guiding and retaining the boards.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Iwano et al. (US 4,895,425) shows plug-in connectors for connecting between circuit boards to a motherboard.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son Nguyen whose telephone number is (703) 308-8745.

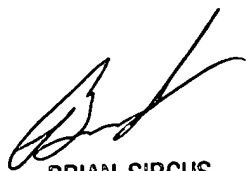
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reach on (703) 308-3119. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1782.

Son Nguyen



July 25, 2002



BRIAN SIRCUS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800